M12
MORE THAN JUST THE STANDARD

M12 CIRCULAR CONNECTORS

CONNECTION TECHNOLOGY
COMPATIBLE, QUICK, SECURE

In industrial environments, sensor/actuator connections require the quick, inexpensive and reliable assembly of M12 connectors.

Various cable passages for common cable diameters.

PRODUCT PHOTOS: STEFFEN WALTER STUDIOS/CAD RENDERINGS: BINDER

OVERVIEW AND APPLICATION

In factory and process automation, usually standardised M8/M12 and 7/8-inch circular connectors are used. binder supplies connectors that can be customised for these applications, including versions with various connection methods and insert-moulded versions in prefabricated cable lengths. These connectors are used primarily for connecting sensors and actuators.

Shielded versions with various coding are used for data transmission. As the Industry 4.0 trend continues, the amount of data to be transmitted is increasing rapidly, so even connectors must be designed with this in mind. For this reason, with the M12 X coding and transmission rates up to 10 GBit/s, we have created a foundation for this development.

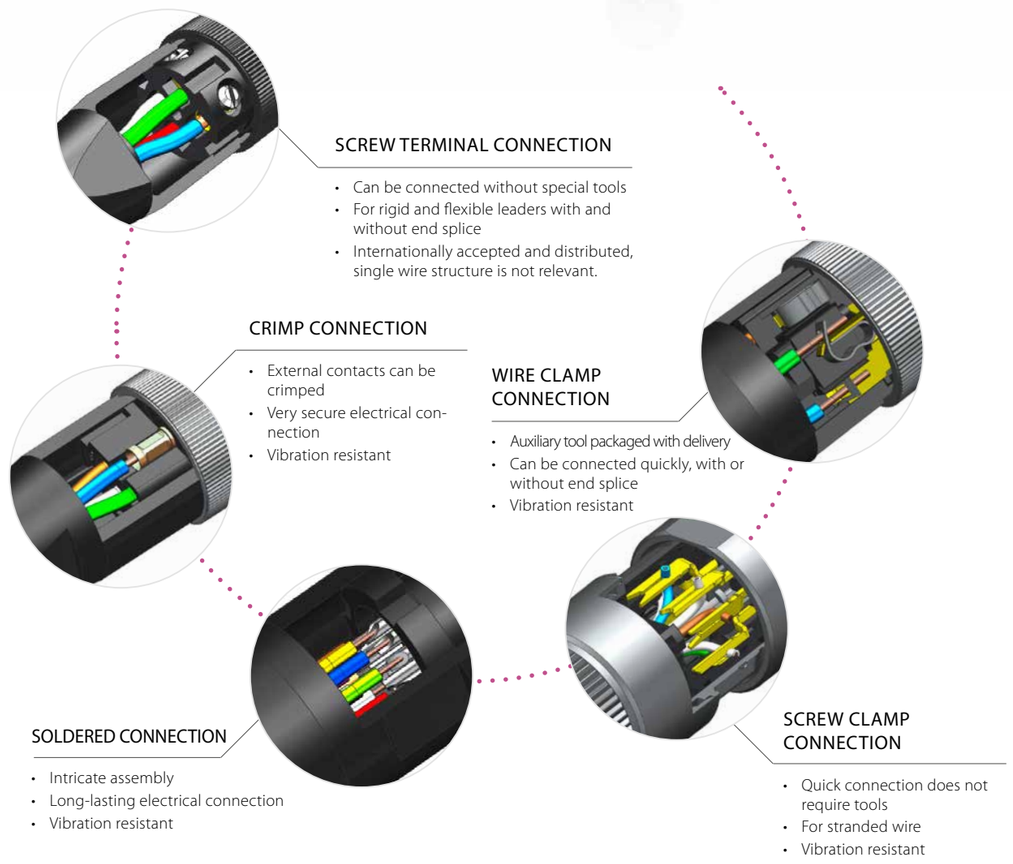
Of course, to supply power the corresponding, pluggable components are also needed. These were created from existing connector systems with adapted functionality and other coding.

In addition to these cable types, binder also supplies built-in connectors that can be integrated into devices. These are available with various connection methods, such as prefabricated single wires, soldered connections or a straight or angled circuit board connection (THR or SMT). This also includes shielded transmission.

This means that binder offers an entire spectrum, from user-friendly circular connectors to the inexpensive and quick wiring of automation solutions. The newest developments from binder include industry solutions such as connectors for food production and for outdoor applications. As a specialist in circular connectors, we develop and manufacture solutions based on customer requirements.

SPECIAL FEATURES OF THE SERIES

- **ALTERNATIVE CONNECTION METHODS**
  Based on customer requirements, binder supplies the right connection method for customisable M12 connectors.
- **READY-MADE SYSTEM CABLES**
  For connecting sensors and actuators, binder supplies an extensive range of M12 system cables that are prefabricated or customised based on customer specifications. For Ethernet communication, binder offers system cables that are inspected and ready to install. The spectrum of solutions includes shielded and unshielded cables in a wide variety of designs.
- **INTEGRATED PLUGS / DEVICE CONNECTORS**
  binder supplies an extensive range of panel mount connectors and integrated plugs with various housing designs and connection options. We also develop and manufacture with customer-specific solutions in mind.



M12 PRODUCT OVERVIEW

M12 Automation Technology A Coding 713 / 763 Series

- Screw lock in accordance with DIN EN 61076-2-101
- Degree of protection IP67/IP68
- Moulded versions
- Easy assembly
- Very good EMC properties
- Versions with static rings/iris type springs
- Angled connector, can be adjusted to 4 positions
- Outdoor version, degree of protection IP 68/IP 69K
- Number of contacts: 3–12

M12-A

M12 Automation Technology B Coding 715 / 766 Series

- Screw lock in accordance with DIN EN 61076-2-101
- Degree of protection IP67
- Moulded versions, degree of protection IP68
- Easy assembly
- Very good EMC properties
- Versions with static rings/iris type springs
- Angled connector, can be adjusted to 4 positions
- Number of contacts: 4–5

M12-B

M12 Automation Technology D Coding 825 Series

- Screw lock in accordance with DIN EN 61076-2-101 and 109
- Degree of protection IP67
- Moulded versions
- Easy assembly
- Very good EMC properties
- Versions with static rings/cable clamps
- Angled connector, can be adjusted to 4 positions
- Number of contacts: 4

M12-D

M12 Automation Technology C/US Coding 815 / 866 Series

- Screw lock in accordance with DIN EN 61076-2-101
- Degree of protection IP67/IP68
- Easy assembly
- Angled connector, can be adjusted to 4 positions
- Number of contacts: 3–5

M12-C/US

M12 Automation Technology X Coding 825 Series

- Connector for Ethernet
- Customisable versions
- Moulded versions, degree of protection IP67
- Very good EMC properties
- Number of contacts: 8

M12-X

M12 Automation Technology L Coding 813 Series

- Screw lock in accordance with DIN EN 61076-2-111
- Degree of protection IP67
- Easy assembly
- Power supply up to 63 V DC/16 A
- Panel mount connectors with single wires
- Number of contacts: 4 + FE

M12-L

M12 Automation Technology S Coding 814 Series

- Screw lock in accordance with DIN EN 61076-2-111
- Degree of protection IP67/IP68
- Easy assembly
- Power supply up to 630 V AC/12 A
- Angled connector, can be adjusted to 4 positions
- Panel mount connectors with single wires/screw clamp contacts
- Number of contacts: 3 + PE

M12-S

M12 Automation Technology K Coding 814 Series

- Screw lock in accordance with DIN EN 61076-2-111
- Degree of protection IP67
- Easy assembly
- Power supply up to 630 V AC/12 A
- Panel mount connectors with single wires
- Number of contacts: 4 + PE

M12-K

M12 Automation Technology T Coding 813 Series

- Screw lock in accordance with DIN EN 61076-2-111
- Degree of protection IP67/IP68
- Easy assembly
- Power supply up to 63 V DC/12 A
- Angled connector, can be adjusted to 4 positions
- Panel mount connectors with single wires/screw clamp contacts
- Number of contacts: 4

M12-T

WHAT WOULD THE WORLD BE WITHOUT CONNECTORS?

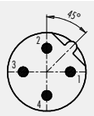
NOTHING!

M12 – ONE CONNECTOR FOR EVERYTHING

In industrial environments, to prevent mismatching, device connections require standardised, non-interchangeable connectors.

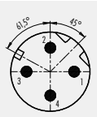
M12 A Coding

Current	Voltage	Degree of protection	Number of contacts	Application
1.5 - 8 A	30 -250 VAC	IP67/IP68/IP69K	3 - 12	Power, Signal, CAN, CANopen, PROFIBUS PA, DeviceNet



M12 B Coding

Current	Voltage	Degree of protection	Number of contacts	Application
4 A	60 -250 VAC	IP67/IP68	4 - 5	PROFIBUS DP



M12 D Coding

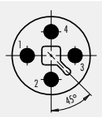
Current	Voltage	Degree of protection	Number of contacts	Application
4 A	250 VAC	IP67	4	Ethernet, EtherCAT, PROFINET, Sercos

M12 X Coding

Current	Voltage	Degree of protection	Number of contacts	Application
0.5 A	50 VAC/60VDC	IP67	8	Ethernet, PROFINET

M12 S Coding

Current	Voltage	Degree of protection	Number of contacts	Application
12 A	630 VAC	IP67	3 + PE	Power supply



M12 T Coding

Strom	Spannung	Schutzart	Polzahl	Anwendung
12 A	63 VDC	IP67	4	Power supply

M12 K Coding

Current	Voltage	Degree of protection	Number of contacts	Application
12 A	630 VAC	IP67	4 + PE	Power supply

M12 L Coding

Current	Voltage	Degree of protection	Number of contacts	Application
16 A	63 VDC	IP67	4 + FE	Power supply, PROFINET

M12 C/US Coding

Current	Voltage	Degree of protection	Number of contacts	Application
4 A	250 VAC	IP67	3 - 5	Signal

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